



Prichard, J., Turnbull, J., Halford, S., & Pope, C. (2014). Trusting technical change in call centres. *Work, Employment and Society*, 28(5), 1-17. <https://doi.org/10.1177/0950017013510763>

Peer reviewed version

Link to published version (if available):
[10.1177/0950017013510763](https://doi.org/10.1177/0950017013510763)

[Link to publication record in Explore Bristol Research](#)
PDF-document

This is the author accepted manuscript (AAM). The final published version (version of record) is available online via Sage at <https://journals.sagepub.com/doi/10.1177/0950017013510763>. Please refer to any applicable terms of use of the publisher.

University of Bristol - Explore Bristol Research

General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available:
<http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/>

Trusting technical change in call centres

Abstract

Technical change is an on-going organisational challenge in call centres. Whilst new technologies continually promise enhanced performance, not least by extending managerial control, the implementation of these technologies is an emergent process that requires effort by workers to establish new routines that embed innovations into everyday work. This article considers the role that trust may play in this process. Drawing on a theoretical framework which conceptualizes trust as an organising principle of organizational activity, and placing this in a wider context where trust may be understood as an element of normative control in the workplace we explore the role of trust in technical innovation in three healthcare call centres. Our research reveals heterogeneous trusting relations between managers, staff and technical systems shaping the process of change and suggests that whilst managerialist efforts to generate trust maybe one element of this, the operation of trust at work is more complex.

Keywords: call centres, trust, control

Introduction

The last three decades have seen consolidation of the call centre as a distinctive organizational paradigm. This 'success' cannot be understood without an appreciation of the part that technological innovation has played in the drive towards highly controlled and standardized services (Glucksmann, 2004; Russell, 2008; Taylor and Bain, 2005,2007; Van den Broek, 2008). This, of course, is not a deterministic role. First, the nature and pace of on-going technical change must be placed within a broader socio-economic and political context (Taylor and Bain 2007). Second, the embedding of particular innovations into everyday practice are by no means guaranteed. Technological innovation is not a matter of 'plug-in and go' whereby finished applications with finite pre-determined effects are simply put into use (Grint and Woolgar, 1997; Pinch and Bijker, 1990;). Rather, the introduction of technology into call centres is an emergent process in which workers may resist or re-interpret implementation (Collin-Jacques and Smith, 2005).

This poses an interesting paradox for those of us interested in the study of call centres. On the one hand, it is clear that the high levels of managerial control and surveillance typical of these organizations is strongly linked to the technological systems in use. On the other hand, embedding these technological systems into everyday practice requires concerted action by workers to achieve the outcomes intended by managers. This article explores the role that *trust* may play in mediating this paradox, specifically in motivating workers' participation in the effective adoption of new technologies chosen by managers to improve call centre productivity. In doing so, we are not suggesting that trust is the only important variable in the change process: to be sure, more familiar mechanisms of surveillance and sanction will play a part in this. However, we do suggest that where technological change renders practices and routines untried and uncertain, demanding concerted effort from all to stabilise work around a new innovation, trust may take on particular significance (e.g. Engstrom and Axelsson, 2010; Egea and Gonzalez,

2011). Indeed, trust is part of the negotiation surrounding the work-effort bargain which Bain and Taylor (2000) identify as an on-going part of call-centre work.

In the following paper, first, we examine trust in existing call-centre research and in literature that proposes trust as a form of normative control in the workplace (e.g. Fox, 1974; Russell, 2008; Fleming and Sturdy, 2010). We argue that whilst this opens a conceptual space for trust in the study of organizational change in call centres, it reveals little about the operation of trust in everyday organizational life. To explore this further, we draw on the conceptual model proposed by McEvily, Peronne and Zaheer (2003) to describe the mechanisms of trust in practice. This model offers a broad conceptual framework which avoids the tendency in much trust research to focus on narrow dimensions of trust or isolated specific trusting relationships. Consequently, it allows a more comprehensive overview of trust in settings such as call centres where there are multiple trusting relationships at play. Second, we present the findings from an empirical study exploring trust in the process of technical change across three call centres. In doing so we consider trust's role in structuring the network of actors around the change process and in mobilising the day-to-day patterns of coordination as the system came into use. Finally, we discuss the implications of our findings which show trust acting as a multi-dimensional, multi-directional and dynamic organising principle of technical change which operates alongside the principles of control and surveillance more typically considered in call centre research.

Trust in Call Centre Work

There is a strong emphasis in call centre research on the ways in which work is organised by extended systems of managerial authority and control, where the workforce is highly monitored and constrained with limited space for trust (Russell, 2008; Taylor and Bain, 2007; Lloyd and Payne 2009). Surveillance systems ensure workers comply with precise targets and standardised

working practices to maximise productivity. Indeed, many researchers propose that technologies behind call-centre operations are selected specifically because they appear to enable the achievement of an “assembly line in the head” (Taylor and Bain, 1999). Call-handlers are understood to have little control over their jobs, which are increasingly intensified and stressful. Such environments which offer limited opportunity for worker discretion are associated with low trust between workers and their managers (Fox 1974). Additionally, research has identified that like other organisational forms of work, managerial challenges such as resistance and employee disaffection are also present within call centres and signal effects of a lack of trust in management (Bain and Taylor 2000; Russell, 2008).

However, as the call centre model of organization has extended across different sectors it has become clear that there is a wider range of experiences present across call centres and in some cases significant levels of employee autonomy and discretion which signal more trusting environments (Batt and Moynihan, 2002; Pritchard and Symon, 2011; Taylor and Bain, 2007). This has been explained (see Russell, 2008) in terms of the balance call-centres strike between the quantity of call handling (quicker call times, more intensive working environments) and the quality of customer service delivered (longer call times, greater worker autonomy and discretion). Whilst the greater autonomy and discretion observed in some call centres to deliver higher service levels suggests greater trust by management in the work force, it may also be seen as a further manifestation of managerial control, as management practices deliberately seek to generate workers’ commitment to organisational goals to distract them from their monotonous, routinized and monitored work practices and secure acquiescence (Fleming and Sturdy, 2010). In other words, trust may be ‘controlled’ by management, although, as Nichols, Danford and Tasiran (2009) have suggested, this will be short-lived if workers come to see that their trust has been misplaced.

Thus the question of trust has been central to our understanding of call centre management and work experience, whether this is the low trust environments and associated practices of managerial control, or higher trust workplaces where call centre managers place some trust in staff with less supervision and more discretion. Nonetheless, little attention has been paid to how trust operates at the level of everyday practice. Drawing on the wider trust literature (e.g. Lewicki, Tomlinson and Gillespie, 2006) we believe that trust has been neglected in at least two senses. First, whilst the literature has offered some consideration of relationships between staff and managers, it has not reflected the wider range of trusting relationships at play to include those between staff, major stakeholders outside of the organisation, and in the technologies at the heart of change. Yet each of these relationships will contribute to the success or otherwise of a technological implementation. Second, it has not acknowledged the multi-dimensional nature of trust to consider how different trusting bases of these relationships inter-relate to shape participation in technological change. A more nuanced consideration of trust in these contexts is needed that draws together what is currently known from the literatures on managerial control in call centres with the organisational trust literature in order to consider the wider dimensions of trusting relationships and how they influence change in highly controlled environments.

Trust has been defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer, Davis and Schoorman, 1995, p.712). This widely used definition has been applied to interpersonal relationships, teams, organizations and in technology (Ashleigh and Prichard, 2012; Lewicki et al., 2006; Li, Hess and Valacich, 2008). Trust is conceptualised as a complex set of judgments, including beliefs about the trustee’s benevolence, integrity and ability (Mayer et al., 1995). In assessing whether or not to trust another party, a trustor may use all or any of these elements as a

basis for their evaluation dependant on the particular context. For example, decisions to trust someone to perform a given task may be more strongly influenced by beliefs about their ability, whilst decisions to trust management plans to change working practices may be dependent on beliefs about the organization's benevolence and integrity. These trusting beliefs derive from several different trusting bases, including the trustor's general propensity to trust, their beliefs about the trustee based on factors such as prior experience, reputation and shared group identities (Mayer et al., 1995), and beliefs based on macro-level aspects like organizational systems and practices, the codes of practice operating in the network, and trust in wider political and social institutions (Bachmann and Inkpen, 2011; Lewis and Weigert, 1985; McEvily et al., 2003).

Less well agreed is whether such principles can be applied to trust in technical actors. Some consider that the same three perceptions of trustworthiness retain significance, with studies showing that humans respond to technology in a social manner (McKnight, 2005; Nass and Moon, 2000). In contrast, others suggest that in addition to beliefs about the competency of the system itself, trust in a new technology is indirectly dependent on trusting bases associated with the technology developers, the users own organisation, and other stakeholders (Li et al, 2008). Conceptualised in this way trust in technology is more consistent with notions of institutional trust, based on beliefs about the benevolence, integrity and ability of the institutions behind the technology rather than individual actors (Coleman, 1990; Hetherington, 2004). Trusting beliefs about technology have been shown to form even prior to use, based on trust in these other actors and/or institutions (Gallivan, 2001) and therefore we agree that these perceptions need to be incorporated into research of trust in technical actors.

Previous studies on trust have emphasised its importance at particular points in the process of organizational change (e.g. intentions to adopt and use a new technology; Egea and González, 2011; McKnight, 2005) and/or in relations between particular actors (e.g. workers trust in

management; Engstrom and Axelsson, 2010; Kiefer, 2005; Morgan and Zeffane, 2003; Saunders and Thornhill, 2003). However, little attention has been paid to how trust operates across the range of relationships at play, or over time. Given the relational and dynamic nature of trust combined with the complex process of technical change in call centres – from managerial strategy about the purposes of change, to workflow design and the everyday practices of call handling – we argue a more integrated approach is required

McEvily et al. (2003) propose that where organisations rely on complex networks of human and technical interaction, especially during times of change when new routines have not yet emerged, trust acts as an *organising principle* of the actors and actions involved. An organising principle is a mechanism which manages interdependence between actors by orienting, enabling and constraining organisational activity. McEvily et al. suggest that trust operates along two causal pathways: structuring and mobilising. Structuring refers to its effects on the links between actors involved in the organization and delivery of a work practice (Coleman, 1990; Mayer et al., 1995; Shapiro, 1987). Trust influences the structure of a network of actors in terms of how many actors are connected together, whether the network is complete, and the breadth of the links in the network in terms of the range of activities around which linked actors are prepared to risk engagement with others. A focus on the structuring effects of trust therefore offers a useful perspective from which to consider whether and why actors enrol in a new innovation and, because the focus is at the system level, it encourages attention to all the relevant actors needed for successful implementation. Their second pathway - mobilising - refers to how trust influences the interaction processes that take place between actors in everyday organizational life, such as knowledge sharing practices, commitment to one another and safeguarding against error or exploitation (Bromiley and Cummings, 1995; Dirks and Ferrin, 2001; Lewicki and Bunker, 1996). In relation to technological change a focus on the mobilising effects of trust offers a

position from which to understand the collective action of the various actors in a network as a new technology comes into day-to-day use.

Conceived as an organising principle, trust therefore acts to hold actors together around a work practice enabling coordinated effort and effective communication. It allows actors to operate where outcomes are uncertain by acting as a heuristic for decision making which facilitates the formation and coordination of interaction chains. Whilst McEvily et al. (2003) acknowledge that trust is just one of many organizing principles which may be operating at any given time they assert that trust will be particularly important where interdependence and uncertainty are high as is typically the case during organizational change. Indeed, they argue that *lack* of trust in these environments will be debilitating for economic activity due to the increased costs involved in decision-making about enrolment and restrictions placed on knowledge sharing as actors aim to reduce their vulnerability to risk.

We propose that this conceptualization has the potential to enhance understanding of how trust operates across the process of technological change in call centres. In what follows, we explore trust in three case study settings. Specifically we ask: does trust structure the network of actors required to implement a new technology in call centre settings? Does trust operate between actors in ways that mobilise the collective activities which bring the technology into use? Finally, we consider how these organisational aspects of trust inter-relate with other organising principles such as managerial control, to influence the implementation of new technology in call centres.

Research Context and Approach

The analysis presented here is based on data from three emergency and urgent healthcare call centres. In recent years a new form of call centre work has emerged in healthcare, where non-

clinical call-handlers, assisted by computerised clinical decision support systems (CDSS), work in call centre settings to triage calls, prioritise need, provide advice and direct callers to the appropriate services (Department of Health, 2008). New digital and information technology has been crucial in opening up medical evidence to permit non-clinical workers to perform what was once clinical work. Whilst research has considered clinical call-handlers' use of such systems (e.g. Hanlon et al, 2005; Smith et al, 2008) research on the introduction of non-clinical users is limited (Turnbull et al., 2012).

The three call centres were at different stages of implementing the same, newly developed CDSS affording some comparability across the sites. Sites differed in the type of health service for which the technology was used. At Site 1 (999), the CDSS was introduced in an ambulance service in 2006 to assess emergency calls, serving a population of approximately 2.5 million. Data collection was undertaken between November 2008 and July 2010, two years after the CDSS was implemented. Call-handlers had previously used a system requiring the collection of the caller's name and address with some basic prioritising of needs. At data collection, the organisation employed 53 call-handlers. The workforce at this site are described elsewhere (Turnbull et al., 2012).

At Site 2 (SPA) the CDSS was introduced to support a new telephone based single-point-of-access for urgent care where callers could be diverted to a range of local primary and urgent care services. This new service began in October 2009 for a population of about 600,000 patients. Operated by the same organization as site 1 it represented a diversification of their core activities. It was also the first national attempt at offering an integrated urgent care service underpinned by the CDSS. Data collection was undertaken at Site 2 starting from the date of implementation (October 2009) until July 2010. The introduction of this new service necessitated the employment of approximately 60 new call-handlers and several new clinical staff.

Site 3 (OOH) was a well-established out-of-hours general practice call-handling service providing urgent care for approximately 140,000 patients. Implementation of the new technology required a switch from a limited paper-based system and enabled a broader service to be provided to callers in relation to care advice which included GP appointments, call-backs and self-care advice. Site 3 employed 54 call-handlers when the CDSS was implemented. Data was collected from implementation in October 2009 until July 2010.

The study used an ethnographic approach. Researchers undertook 491 hours of non-participant observation and 64 interviews. Overt observation was conducted to provide a detailed, nuanced description of the design, development, management and use of the CDSS in each setting, including skills and expertise, team relations, and views about the CDSS. Observational work focused on call-handlers using the CDSS, clinical supervisors (999 and SPA site), ambulance dispatchers (999) and GPs (OOH); their interactions with each other and the CDSS. There were opportunities to talk informally with staff and observation was purposively structured to capture activity at different times of day/days of the week, covering all or part of a shift depending on the setting.

Interviews were conducted with call-handlers, supervisors and managers, clinical staff and key stakeholders around each organization. Key stakeholders included Department of Health managers and policy advisors involved with the reform of urgent and emergency care and NHS information technology infrastructure, a representative of the National Clinical Governance Group for the CDSS and senior managers of the CDSS development team. Some direct questions relating to trust were specifically asked, but there were also spontaneous references to trust in the technology or between actors which emerged in both interviews and informal conversations during observations. Interviews were recorded and transcribed verbatim. Detailed fieldnotes were taken during observations. Data were anonymised by removing personal names from transcripts and fieldnotes. Ethnographic data were coded independently by five researchers.

Initially this was undertaken using simple word-processing facilities, but as the coding and analysis developed this was supported by the use of Atlas-Ti software to store and retrieve data. The data were then discussed during 22 data clinics (approximately 100 hours) to agree key themes and interpretations. The data were analysed for different aspects of trust to consider its presence and effect in both enrolling actors into the change process and linking them together (structuring) and its influence on the day-to-day activities of the CDSS coming into everyday use (mobilising).

The structuring effects of trust on technical innovation

McEvily et al. (2003) propose the organising effects of trust are partially evidenced through its structuring effects on the interconnections between actors; i.e. the presence of trust facilitates the formation of network links between actors. Implementation required the involvement of call-handlers, local managers and the CDSS development team, as well as the Department of Health (DH) managers involved in service reform and IT infrastructure, who had a keen interest in the success of the CDSS related to ambitions to deploy it in wider reform. Senior managers expressed in their interviews the trust they felt had been placed in them by the other participants that they had the vision and capability to make the new system work.

“We’ve always been used to pioneering things. .. So we are used to new things and we’re used to piloting stuff. And we like to do things the best. So I think that’s why [CDSS manager] was quite keen on us to do it because she knew that we were ... a robust out-of-hours organisation.” Interview, OOH, Manager.

Trust was expressed both at a dyadic level and at an organisational level. For example, enrolment of the OOH organisation was facilitated by a trusted DH manager who recommended the technology in the light of its success at 999. Senior DH managers also trusted the CDSS development team to produce a technology that could do the job.

“[CDSS Manager] is one of the heroes. I’ve not seen anybody like him actually, both in terms of the kind of person he is, but also just how much he delivers. It’s just extraordinary. I mean, you literally...you just need to discuss something with him, a problem, put it out there and he’ll come back with a solution.”

Interview, DH Manager.

At an institutional level there was evidence of trust between the host organisation and the CDSS developers who were dependent on one another for the success of their individual organisational goals and their collective goals.

‘The [CDSS developer] team is ... excellent at authoring these kinds of systems and building the evidence base that’s set for the goals behind them, but they didn’t have ... real hands on, ambulance 999 call taking expertise, which we have added in.’ Interview, 999, Manager.

In addition to trust structuring links between human actors it also structured links to the technology at the centre of the change process driving enrolment. Introduction of the CDSS posed a fundamental change to triaging urgent and emergency care calls (Turnbull et al., 2012). Call-handlers moved from ‘receptionists’ taking details and passing on messages to clinical staff for triage, to using the CDSS to make complex clinical assessments. For this to happen it was important that actors at every level of the change process, from DH to organizational managers and call-handlers, trusted the technology to deliver what it promised, despite very little prior evidence of use.

Trust in the CDSS was evident among those in charge of the intervention – managers and major stakeholders - and was linked to achievement of their ambitions. At each site the CDSS was regarded as the critical to placing the organisation at the forefront of delivering urgent and emergency call-handling; *“this system, its transformational opportunity, was not lost on us”* (Interview, SPA, Manager). Beliefs that the CDSS could safely deliver these local imperatives were further underpinned by beliefs that it would address the national imperative of resourcing urgent and

emergency care under conditions of increased demand and severe cost pressures. There was a view that the CDSS could rationalize decision making and standardize service delivery in a way that no human could.

At all sites trust was expressed in terms of confident expectations about the clinical knowledge base of the CDSS. Consistent with previous implementation research (Gallivan, 2001; Li et al, 2008) trust lay in the competence of the medical profession whose expertise provided the knowledge ‘inside’ the CDSS algorithms. This transferred to beliefs about the technology itself.

‘Just because of the background of people who’s put [CDSS] together, ...doctors, paramedics, clinicians of all kinds.’ Interview, SPA, Call-handler.

“[The CDSS] has been designed by doctors and nurses and like a team of specialists. I think you’ve got to trust it” Interview, 999, Call-handler.

“You have to trust [the CDSS], because it’s a system that’s been set up and it’s been done through GPs and nurses and everything else.” Interview, OOH, Call-handler:

This belief was widely embedded in organisational discourses about the CDSS even among those who had never used it themselves. It is proposed that this facilitated preparedness to participate in the change concept.

Although it was clear that there was trust in the technology itself, the concept of change involved the further element that it could be safely used by non-clinical rather than clinical operators. Among managers and major stakeholders trust in the concept that the work could be safely performed by the non-clinical workforce at each of the sites was consistently high. Notably, this was premised on the understanding that these clerical workers using a CDSS were *more* reliable than clinically trained staff who might undermine the standardised algorithms of the CDSS with

idiosyncratic clinical experiences. Senior staff frequently described how the system simply needed a competent driver and that call centre staff had the skills required to do this.

I think we've demonstrated so far that [the CDSS] can deliver safe assessments to the patients. It can deliver them consistently ... with a workforce...essentially, technicians, people who are not nurses, they're not doctors, they're not clinically trained. Interview, SPA, Manager.

In contrast to the beliefs of managers and stakeholders, patterns of trust amongst call-handlers that they could do this task were complex and inconsistent across the workforce. At some settings low levels of trust were found that non-clinicians should, or could, do this type of work. Concerns were expressed that they were being asked to perform 'clinical work' without the necessary skill set. This was most notable among 999 and OOHs call-handlers who had experienced the systems being replaced by the new CDSS. Trust in the 'old system' was found to negatively influence their trust in their use of the CDSS and had the potential to adversely impact their identification with the change process.

'It is first line triage done by non-clinical staff, for half the price that you're going to have to pay a nurse. If that's good, if that's saving people money, that's fine, but they're asking people who have 60 hours training and not a medical background at all, to do what we're doing.' Interview, OOH, call-handler.

However, many of these concerns amongst call-handlers were offset against high trust in the technology itself and also trust in their employers to provide appropriate support.

'Obviously it's [the CDSS] been very well developed and I like the fact that it will look for absolutely anything, so it's very, very rare that it'll miss anything. So the security blanket of it [the CDSS] makes the pressure of the job a lot, lot lighter because you know that [the CDSS] is probably going to pick it up even if you do something wrong.' Interview, SPA, call-handler.

Overall the working environment between managers and workers appeared to be characterised by positive, trusting employment relationships prior to implementation and high levels of organisational commitment to what call-handlers regarded as a caring service organisation. Although each site was essentially a call center, staff did not appear to see themselves in this way but rather as a more distinguished set of health workers (Turnbull et al., 2012). Tied up with this identity was a belief that their organization provided a high quality service for its callers and that the new system would mean that they could do this better than other health care services. Close alignment between the change concept and high levels of trust in the organizational identity promoted commitment.

In summary, our analysis evidences trust structuring relationships between actors in these settings. For those in managerial positions, the effects of trust were fairly clear cut based around a strong discourse that the system could triage calls safely and that those needed to implement change, including the workforce, had the necessary skills. However, in relation to call-handlers, the role of trust at the point of enrolment was more complex. Ultimately, call-handlers had no choice other than to conform to the will of management to use the technology, situating control as a key organising principle. However, we suggest that control did not operate alone to build the links between call-handlers and the technology. Instead, the discourse of managers and stakeholders around the introduction of the new technology established organisational norms of trust in the CDSS and the belief that the organisation could deliver the change successfully. These trusting foundations offset a lack of trust amongst some call-handlers about their ability to use the system so resulting in their willing engagement. Drawing on the McEvily et al's (2003) model, trust thus influenced the enrolment of actors into the network facilitating positive participation in circumstances that might otherwise have engendered resistance.

The mobilising effects of trust in call centre change

The second strand of McEvily et al.'s (2003) model focuses on trust's influence on the interaction processes taking place between actors in everyday organizational life. Thus it moves our attention from thinking about its initial effects of linking actors together, to the characteristics of those relationships as the system came into use. Specifically, whether knowledge is shared with others, how shared knowledge is perceived, engagement in monitoring and safeguarding behaviours and identification (or otherwise) with collective organisational goals.

Trust in the CDSS which had influenced initial enrolment resulted in the on-going commitment needed to bring the CDSS into use as the workforce adjusted to changes in workflows and intensification of their roles. Nonetheless, amongst call-handlers there were reservations about the technology. Trust was updated by experience of system use, reinforcing trust in the evidence base of the CDSS and eliminating concerns about their own competence to operate it. However, at the same time, experience limited their trust in other dimensions. For example, almost all suggested that certain callers (e.g. children, heavy drinkers) and certain situations (e.g. calls about more than one person, callers with multiple symptoms) were not handled well by the CDSS. *"I think sometimes it's a bit ambiguous as to which pathway you should go down when there is a lot of symptoms presented, and then [the patient] not saying one of them in particular is worse."* (Interview, SPA call-handler.)

Additionally, although the system was believed to be important for rationing precious NHS resources, many call-handlers also believed that the caring nature of the service was sometimes more important. In these circumstances, when dealing with "genuine" callers, there was a lack of trust in the benevolence and integrity of the system and the manner in which it was deployed by the organisation for rationing purposes. This was accompanied by a belief that such care was better trusted to a human actor capable of the compassion needed to make such decisions. A number of call-handlers responded to the system in the social manner similarly observed by

other researchers (McNight, 2005) discussing the system as lacking the ‘emotion’ to deal with calls in a caring manner.

‘...I’ll give you a for instance. A lady phoned up... And I just was about to click onto [the CDSS] and I said to her, “what’s happening with you tonight, what’s the symptoms”? She burst into tears. Her baby had died in hospital the night before. And she was grieving and she was distressed. I’m not going to go down a pathway for that.’ Interview, OOH, call-handler.

A frequent consequence of trusting the CDSS in some ways but not in others meant that instead of following the system as envisaged by the system developers and managers, call-handlers sometimes ignored the formal controls typical of call-centre settings. Call-handlers showed resistance to the prescriptive workflows management sought to impose by overriding dispositions reached by the system or exiting the system to deal with the call on their own.

“Some of it is the way that our call-takers are using it because they’re the ones that are early exiting from it because they think, oh, I know better than that, or I’m not comfortable with that. So rather than just seeing it through, they’re going, I’ll do it the way I want to do it. So we’ve still got some change management to do. Interview, OOH manager.

The call-handlers’ ability to override the system challenged organisational control over the workforce to deliver the standardised workflows regarded as essential in a safe service. At each site there was an audit procedure to closely monitor if call-handlers reached set performance standards and followed the CDSS correctly. Performance was evaluated monthly with potential sanctions for inadequate performance, including retraining. The control afforded by these auditing features was one of the reasons that the CDSS was so highly trusted by managers and DH officials. Such surveillance and control suggests a *lack* of trust in call-handlers, something that they were well aware of, particularly at 999 and SPA where the audit function was extensive.

'So it's a bit of a Big Brother kind of a world ... as in, you never know if you're, when you're, being listened to or when you're not being listened to.' Interview, SPA, call-handler.

Feelings were amplified at 999 by the introduction of 'clinical supervisors' employed to support difficult calls and assist in the audit function. These clinical supervisors were initially met with distrust by call-handlers who questioned the supervisor's competence, given that they had limited experience of call-handling themselves. This impacted on both call-handlers' preparedness to seek support and accept feedback from supervisors.

'They [clinical supervisors] don't really do much...' The call-handler talked about 'bad feeling' between the call-handlers and clinical supervisors' how they 'judge us when they don't take calls'. Observation, 999, Call-handler.

Similarly, clinical supervisors at 999 initially showed limited trust in call-handlers; monitoring them closely and establishing work systems that limited their ability to bypass the system. *"As a clinical supervisor, you know which call-takers you can trust"* (Interview, 999, Supervisor). However, despite the high levels of performance monitoring, distrust was gradually overcome through structural changes which sought to establish the audit in a more supportive way, and through improved coordination over time.

"We said it wouldn't be done in a punitive way; it would be done in a supportive arm-round-the-shoulder way. []. And everybody, I think, believes they're doing a great job." Interview, 999, Manager.

Over time across all sites call-handlers and clinical supervisors negotiated a more flexible approach to the call-handling role, which limited excessive safeguarding and enabled call-handlers to exercise some discretion around their role without sanction. For example, making decisions to override or upgrade dispositions, or spending additional time on calls where the caller was distressed.

I do [feel trusted] because obviously the first month when we were new here and we were being shadowed, you know, either [supervisors] would be in here. But now, you're left to your own devices, you're left at your own computer station, and rather than them coming over and checking up on you, the only time that you... the only time you really see them is when you actually need help. ... So yes, you know, 100% trust. You feel like there's 100% trust, definitely. Interview OOH, call-handler.

Relaxation of some of these formal controls gradually promoted greater trust in supervisor competence and increased information sharing such that call-handlers would seek support when they needed it, often requesting the clinical supervisors listen back to difficult calls to check whether they had been handled correctly or could have done things better. Thus trust mediated the development of a refined model of implementation in which call-handlers positive participation was gained through the relaxation of some formal controls. This is not to say that monitoring was reduced, rather that call-handlers were afforded more discretion to respond to callers' needs.

In addition to exploring trust between work roles, analysis also revealed evidence of high levels of trust between call-handlers in each other. This promoted their positive participation with one another to provide mutual support, especially during the crucial early days where difficulties in call-handling could have led to withdrawal of the whole intervention. Trusting behaviours such as sharing information about difficult calls, discussing 'mistakes', buddying new call-handlers and sharing personal knowledge about clinical conditions that might be useful during future calls were apparent in both observations of call-handlers at work and during interviews.

'People we're going to start buddying, say "oh, well, like what if I'm on my own and I'm stuck for an address?'. I'm like, "the fact is just you'll never ever be on your own, there'll always be someone". Interview, 999, call-handler.

Trust promoted knowledge sharing through the open disclosure of information and encouraged supportive heedful relating. These combined to enable effective teamwork, well-coordinated activity and organizational learning.

Whilst these trusting relationships between call-handlers arose spontaneously, influential actors in the network, (e.g. senior managers) also recognized the need to mobilize trust purposively to promote identification with the change process and so secure commitment. *'We need to get all the technology in place, all the hearts and minds that people need to have in place.'* (Interview, SPA, manager).

Managers and the CDSS developers invested time in getting and keeping call-handlers on board by involving them in refining workflows and the CDSS algorithms, showing trust in the call-handlers ability to provide valuable opinions about the new system. Trust was developed in response through the reciprocal relationship that exists between trust and knowledge sharing and helped to allay fears about a loss of control and discretion over their work in the face of using a technology designed to standardise and monitor their work practices.

In summary, across all call centres there was evidence of trust operating to organise work processes and the interactions between actors as the CDSS came into use consistent with the framework of trust as an organising principle offered by McEvily et al. (2003). Furthermore, patterns of trust were complex and shifting, influenced by experiences of the system in use and interfacing with elements of organisational control to both support but also reconfigure the way in which the new technology came into use.

Discussion and Conclusions

This article has explored the role of trust in shaping technical change in call centre work. Our analysis shows extensive evidence of trust organising change. Trust (high or low) was not only a

feature of cooperation between managers and major stakeholders, but also widely expressed by call-handlers in their beliefs about the technology, the process of change, their managers, and in one another. The effects of trust were not limited to specific elements or timed phases of organizational change. Rather, consistent with the proposition of its organising effects on workplace activity (McEvily et al., 2003), trust operated to influence both the initial structuring of the network (enrolling actors), and mobilising the collective action required to bring and keep the technology in use.

Findings further reveal the complex ways in which trust in different actors and processes were interlinked, as identified in the wider trust literature (Li et al, 2008; Mayer et al., 1995). For example, trust in the technology and the behaviours relating to its use were influenced by a complex set of trusting bases including beliefs about; previous technologies, the developers, the algorithms, the purposes for which the technology is used, how these sit with the users' beliefs about service quality, and about the evaluation systems that surround technology use.

Furthermore, trust was not static within any of these domains but updated in response to experience of the system and changes in management's use of control strategies such as performance monitoring or tolerance of discretionary behaviours. From this we can see how trust influences and is influenced by change in ways that are only revealed by extending previous studies (e.g. Engstrom and Axelsson, 2010; Kiefer, 2005; McKnight, 2005) and looking more widely to the range of actors connected to the change process, from initial enrolment through to day-to-day use.

Whilst our analysis identifies the organising effects of trust in our sites, giving the impression of some freedom from managerialist principles, it is possible to interpret some aspects of trust in these contexts in ways more consistent with existing call centre literature. Theories of normative control (e.g. Fleming and Sturdy, 2011; Kunda, 1992) suggest that management deliberately deploy strategies to promote workers' commitment and distract them from the routinized and

monitored nature of their work. In our sites, managers initiated an organisational discourse around the innovation which built trust in the technology and in the range of actors involved. Furthermore, managers specifically worked with call-handlers to build and retain their trust. Indeed, there were instances where such actions were deliberate attempts to build the trust needed to ensure call-handlers buy-in and secure managerial control. Such an analysis however, does not dismiss the organising effects of trust. Rather, consistent with research in other contexts (Bradach and Eccles, 1989; Das & Teng, 1998) it demonstrates trust and control operating in concert to shape organisational patterns and processes, mediating the relationship between managers' ambitions to improve call centre efficiency and the participation of workers whose efforts are required to realise those ambitions.

Although the above example shows that control might underlie trust, elsewhere our analysis revealed the relationship between control and trust was not one-way as evidenced by managers acceding to call-handlers evaluations of the CDSS. Here, call-handlers' lack of trust in its capacities to deal with all circumstances and their subsequent resistance led to a revision of formal managerial controls by allowing discretionary leeway in recognition of the contingent and complex nature of the calls dealt with (Knights and McCabe, 2000; Russell, 2007). Similarly, the CDSS development team trusted the call-handlers' evaluation of weaknesses in the algorithms which ultimately led to redesigning the CDSS to something more trusted by its users.

Thus although the representation of trust as an organising principle in call centres appears somewhat at odds with the existing literature which has characterised these contexts as dominated by systems of control (Russell, 2008; Taylor and Bain, 2007), our analysis reveals that it is not possible or necessary to decouple trust as an organising principle from that of managerial control. Rather, trust and control co-occur. This may be because trust is manipulated to ensure control, but also because trust appears in the spaces where control is not possible i.e. where behaviours cannot be observed, controlled (Bradach and Eccles, 1989; McEvily et al, 2003), or

predicted (Russell, 2007). In such circumstances some level of trust becomes an efficient choice (McEvily et al., 2003).

Not addressed by these findings are whether the trust in these call-centres will endure or whether similar patterns could be found in other types of call centre. Although the use of expert systems to support clerical workers to perform skilled roles has existed in other sectors for some time, their use in healthcare is relatively new. For organisations using this mode of service delivery, the first stage in this process has been to implement the technology, train staff and establish organisational systems that ensure safety for callers. This approach has combined with an organisational culture in which the dual logics of quantity/quality of service delivery (Taylor and Bain, 1999) has favoured providing a responsive and “caring service”. Consequently some managerial control has been relinquished, allowing call-handlers to use their judgement to override and upgrade dispositions and engage in longer call times in order to provide quality healthcare to ‘deserving’ people. Outside this sector, the history of call centre development has been one in which political and economic factors have combined with technological innovation to bring about increasing intensification of work to maximise competitive advantage (Russell, 2008). Where the competing pressures of quantity versus quality of call-handling have emerged, this has frequently been addressed in favour of efficiency (Russell, 2008). Whilst the public sector of healthcare provision considered in this study may be less influenced by the competitive imperative, similar change might emerge in response to budgetary pressures (Taylor and Bain, 2007). Such a shift may have negative effects on trust and its place in these contexts in response to the increased managerial control needed to intensify this ‘caring’ work. Thus the positive effect of trust found in these settings may not endure if the favourable beliefs of workers in their managers are not realised in the long term (Nichols et al., 2009). Future research should both seek to observe changes in the role of trust in this sector as it responds to political and economic developments, and replicate this research in other call centre settings to determine whether trust

plays a consistent role in shaping change in call centres, or rather whether it is a “child of its time and place”.

References

- Ashleigh MJ and Prichard JS (2012). An integrative model of trust's role in transactive memory development. *Group Organization and Management* 37(1):5 –34.
- Bachmann R and Inkpen AC (2011). Understanding institutional-based trust building processes in inter-organizational relationships. *Organization Studies*, 32:281-301.
- Bain P and Taylor P (2000) Entrapped by the ‘electronic panopticon’? Worker resistance in the call centre. *New Technology, Work and Employment*, 15(1):2-18.
- Batt R and Moynihan L (2002) The viability of alternative call centre production models. *Human Resource Management Journal* 12(4):14–34.
- Bradach JL and Eccles RG (1989). Price, authority and trust: From ideal types to plural forms. *Annual Review of Sociology* 15(1):97-118.
- Bromiley P and Cummings LL (1995). Transactions costs in organizations with trust. In R. Bies, B. Sheppard and R. Lewicki (eds), *Research on Negotiations in Organizations*, Greenwich, CT: JAI Press.
- Collin-Jacques C and Smith C (2005) Nursing on the line: Experiences from England and Quebec (Canada). *Human Relations* 58(1):5-32.
- Coleman J (1990) *Foundations of Social Theory*, Cambridge, MA: Harvard University Press.
- Das TK and Bing-Sheng T (1998). “Between trust and control” *Academy of Management Review* 23(3):491-512.

- Department of Health. (2008) *NHS Next Stage Review. Our vision for primary and community care*
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085937 (accessed 08 February 2012)
- Dirks KT and Ferrin DL (2001). The role of trust in organizational settings. *Organization Science*. 12(4):450–467.
- Egea JMO and González MVR (2011). Explaining physicians' acceptance of EHCR systems: An extension of TAM with trust and risk factors. *Computers in Human Action*, 27:319-332.
- Engström AK and Axelsson R (2010). The double spiral of change - experiences of privatization in a Swedish hospital. *International Journal of Health Planning and Management*, 25:156-168.
- Fleming P and Sturdy A (2010). Being Yourself in the Electronic Sweatshop: New forms of Normative Control. *Human Relations* 64, 2177-200.
- Fox A (1974) *Beyond Contract: Work, Trust and Power Relations*. London: Faber
- Gallivan MJ (2001) Organizational adoption and assimilation of complex technological innovations: development and application of a new framework. *Database for Advances in Information Systems* 32(3):51–85.
- Glucksmann M (2004). Call configurations: varieties of call centres and divisions of labour. *Work, Employment and Society* 18(4):795-811.
- Grint K and Woolgar S (1997). *The Machine at Work: technology, work and organization*. Oxford, Polity Press.
- Hanlon G, Strangleman T, Goode J, Luff D, O'Cathain A and Greatbatch D (2005) Knowledge, technology and nursing: The case of NHS Direct. *Human Relations* 58(2):147–171

- Hetherington, M. (2004), *Why Trust Matters: Declining Political Trust and the Demise of American Liberalism*, Princeton, NJ: Princeton University Press.
- Kiefer T (2005). Feeling bad: Antecedents and consequences of negative emotions in on-going change. *Journal of Organizational Behavior*, 26:875-897.
- Kunda, G. (1992). *Engineering Culture: Control and Commitment in a High Technology Corporation*. Philadelphia: Temple University Press.
- Lewicki, R., & Bunker B. (1996). Developing and maintaining trust in work relationships. In R. Kramer & T. Tyler (Eds.), *Trust in organizations*, Thousand Oaks, CA: Sage.
- Lewicki RJ, Tomlinson, EC and Gillespie N (2006). Models on interpersonal trust development: Theoretical approaches, empirical evidence and future directions. *Journal of Management*, 32(6):991-1002.
- Lewis JD and Weigert A (1985). Trust as a social reality. *Social Forces*, 63(4):967-985.
- Li X, Hess TJ and Valacich JS (2008). Why do we trust new technology? A study of initial trust formation with organizational information systems. *Journal of Strategic Information Systems*, 17:39-71.
- Lloyd C and Payne J (2009). 'Full of sound and fury, signifying nothing': Interrogating new skill concepts in service work – the view from two call centres. *Work, Employment and Society*, 23(4): 617-634.
- Mayer RC, Davis JH and Schoorman FD (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3):709–734.
- McEvily B, Perrone V and Zaheer A (2003). Trust as an organizing principle. *Organization Science*, 14(1):91-103.

- McKnight DH (2005). Trust in information technology. In: Davis, G.B. (Ed.), *The Blackwell Encyclopaedia of Management* (pp.329–331). Maiden, MA: Blackwell.
- Morgan DE and Zeffane R (2003). Employee involvement, organizational change and trust in management. *International Journal of Human Resource Management*, 14:55-75.
- Nass C and Moon Y (2000) Machines and mindlessness: social responses to computers. *Journal of Social Issues* 56(1):81–103.
- Nichols T, Danford A, and Tasiran A (2009) Trust, Employer Exposure and the Employment Relation. *Economic and Industrial Democracy* 30:241-265
- Pinch T and Bijker W (1990). The social construction of facts and artefacts: or how the sociology of science and the sociology of technology might benefit each other. In W. Bijker, T. Hughes, and T. Pinch (Eds.) *The Social Construction of Technological Systems*. Boston: MIT press.
- Pritchard K and Symon G (2011) Identity on the line: constructing professional identity in a HR call centre. *Work, Employment and Society* 25(3):434-450.
- Russell B (2008) Call centres: A decade of research. *International Journal of Management Reviews* 10(3):195-219.
- Saunders MNK and Thornhill A (2003). Organizational justice, trust and the management of change. *Personnel Review*, 32:360-375.
- Shapiro SP (1987). The social control of impersonal trust. *American Journal of Sociology* 93(3):623-58.
- Smith C, Valsecchi R, Mueller F and Gabe J (2008) Knowledge and the discourse of labour process transformation: nurses and the case of NHS Direct for England. *Work, Employment and Society*, 22(4):581-599.

- Taylor P and Bain P (1999), “An Assembly Line in the Head”: Work and Employee Relations in the Call Centre. *Industrial Relations Journal* 30(2):101–117.
- Taylor P and Bain P (2005) ‘India calling to the far away towns’: the call centre labour process and globalization. *Work, Employment and Society*, 19(2):261-282.
- Taylor P and Bain P (2007) Reflections on the call centre – reply to Gluckmann. *Work, Employment and Society* 21(2):349-362
- Turnbull, J, Prichard, J.S., Pope, C and Halford, S.J and Salisbury, C. (2012). Reconfiguring the emergency and urgent care workforce: mixed methods study of skills and the everyday work of non-clinical call-handlers in the NHS. *Journal of Health Services Research and Policy*. 17(4): 233-240.
- Van Den Broek D (2008) ‘Doing things right’, or ‘doing the right things’? Call centre migrations and dimensions of knowledge. *Work, Employment and Society* 22(4):601-613.